

CLAIM AMENDMENTS

1. (Currently Amended) A stimulation kit, comprising:
a first tissue stimulation lead comprising a first elongated body, a first stimulation element, and a first coupling mechanism longitudinally extending along at least a portion of the first elongated body; and
a second tissue stimulation lead comprising a second elongated body, a second stimulation element, and a first complementary coupling mechanism configured to slidably engage the first coupling mechanism, wherein the second elongated body is shorter than the first elongated body, such that the first elongated body is configured for extending from the patient's back when disposed within the patient's spine, and the second elongated body is configured for being entirely received within the patient's spine when the complementary coupling mechanism is slidably engaged with the coupling mechanism.
2. (Original) The stimulation kit of claim 1, wherein at least one of the first and second elongated bodies is cylindrically-shaped.
3. (Original) The stimulation kit of claim 1, wherein the greatest cross-sectional dimension of at least one of the first and second elongated bodies is 5 mm or less.
4. (Original) The stimulation kit of claim 1, wherein the first and second stimulation elements are electrodes.
5. (Original) The stimulation kit of claim 1, wherein the first and second stimulation elements are mounted on the respective first and second elongated bodies.
6. (Currently Amended) The stimulation kit of claim 1, wherein the first and second stimulation elements are configured to face a single direction when the first complementary coupling mechanism slidably engages the first coupling mechanism.

7. (Original) The stimulation kit of claim 1, wherein each of the first and second stimulation leads comprises a plurality of stimulation elements.

8. (Currently Amended) The stimulation kit of claim 1, wherein the first coupling mechanism and first complementary coupling mechanism are configured to slidably engage each other in a rail and slot arrangement.

9. (Currently Amended) The stimulation kit of claim 1, wherein the second complementary coupling mechanism is configured to extends along only a distal portion of the second elongated body.

10-17. (Cancelled).

18. (Currently Amended) The stimulation kit of claim 1, wherein the first stimulation lead comprises another coupling mechanism longitudinally extending along at least a portion of the first elongated body, the stimulation kit further comprising a third stimulation lead comprising a third elongated body, a stimulation element mounted on the third elongated body, and another complementary coupling mechanism configured to slidably engage the other coupling mechanism, wherein the third elongated body is shorter than the first elongated body, such that the third elongated body is configured for being entirely received within patient's spine when the other complementary coupling mechanism is slidably engaged with the other coupling mechanism.

19. (Original) The stimulation kit of claim 1, further comprising a stimulation source configured to be coupled to the first and second stimulation leads.

20. (Currently Amended) A method of treating a disorder in a patient using the stimulation kit of claim 1, comprising:

delivering the first stimulation lead into the epidural space of the patient's spine;

delivering the second stimulation lead into the epidural space by sliding the complementary coupling mechanism along the coupling mechanism, such that the first elongated body extends from the patient's back, and the second elongated body is entirely received within the patient's spine.

21. (Original) The method of claim 20, wherein the first and second stimulation leads are delivered into the epidural space through a percutaneous opening.

22. (Original) The method of claim 20, further comprising conveying stimulation energy from the first and second stimulation elements into neural tissue within the patient's spine.

23. (Original) The method of claim 22, wherein the disorder is chronic pain.

24-36. (Cancelled).

37. (Currently Amended) A method of treating a disorder in a patient, comprising:
delivering a first stimulation lead into the epidural space of the patient's spine;
delivering a second stimulation lead into the epidural space by slidably engaging the second stimulation lead along the first stimulation lead; and
deploying the second stimulation lead from the first stimulation lead.

38. (Original) The method of claim 37, wherein the first and second stimulation leads are delivered into the epidural space through a percutaneous opening.

39. (Original) The method of claim 37, further comprising implanting the first and second stimulation leads within the patient's spine.

40. (Original) The method of claim 37, further comprising coupling the first and second stimulation leads to a stimulation source.

41. (Original) The method of claim 37, wherein the disorder is chronic pain.

42. (Original) The method of claim 40, further comprising conveying stimulation energy from the stimulation source to the first and second stimulation leads to stimulate neural tissue within the patient's spine.

43. (Original) The method of claim 42, wherein the stimulation energy is electrical energy.

44. (Original) The method of claim 42, wherein the stimulation energy is focused into the neural tissue.

45. (Currently Amended) The method of claim 37, further comprising:
delivering a third stimulation lead into the epidural space by slidably engaging the third stimulation lead along the first stimulation lead; and
deploying the third stimulation lead from the first stimulation lead.

46. (Original) The method of claim 37, further comprising inserting a delivery device into the epidural space, wherein the first stimulation lead is introduced through the delivery device into the epidural space.

47. (Original) The method of claim 46, wherein the delivery device is one of an introducer or needle.

48-125. (Cancelled).

126. (New) A stimulation kit, comprising:
a first tissue stimulation lead comprising a first elongated body, a first stimulation element, and a first coupling mechanism longitudinally extending along at least a portion of the first elongated body; and

a second tissue stimulation lead comprising a second elongated body, a second stimulation element, and a first complementary coupling mechanism configured to slidably

engage the first coupling mechanism, wherein the second elongated body is configured to deploy from the first elongated body by slidably disengaging at least a portion of the complementary coupling mechanism from the coupling mechanism.

127. (New) The stimulation kit of claim 126, wherein at least one of the first and second elongated bodies is cylindrically-shaped.

128. (New) The stimulation kit of claim 126, wherein the greatest cross-sectional dimension of at least one of the first and second elongated bodies is 5 mm or less.

129. (New) The stimulation kit of claim 126, wherein the first and second stimulation elements are electrodes.

130. (New) The stimulation kit of claim 126, wherein the first and second stimulation elements are mounted on the respective first and second elongated bodies.

131. (New) The stimulation kit of claim 126, wherein the first and second stimulation elements are configured to face a single direction when the first complementary coupling mechanism slidably engages the first coupling mechanism.

132. (New) The stimulation kit of claim 126, wherein each of the first and second stimulation leads comprises a plurality of stimulation elements.

133. (New) The stimulation kit of claim 126, wherein the first coupling mechanism and first complementary coupling mechanism are configured to slidably engage each other in a rail and slot arrangement.

134. (New) The stimulation kit of claim 126, wherein the second complementary coupling mechanism extends along only a distal portion of the second elongated body.

135. (New) The stimulation kit of claim 126, wherein the second elongated body is shorter than the first elongated body.

136. (New) The stimulation kit of claim 126, wherein the second elongated body is pre-curved.

137. (New) The stimulation kit of claim 126, wherein the second elongated body is configured to be actively changed from a first geometry to a second geometry after deployment from the first elongated body.

138. (New) The stimulation kit of claim 137, further comprising a stylet configured to be introduced through the second elongated body to change the second elongated body from the first geometry to the second geometry.

139. (New) The stimulation kit of claim 137, wherein the second stimulation lead comprises a pullwire configured to be pulled to change the second elongated body from the first geometry to the second geometry.

140. (New) The stimulation kit of claim 126, wherein the first stimulation lead comprises another coupling mechanism longitudinally extending along at least a portion of the first elongated body, the stimulation kit further comprising a third stimulation lead comprising a third elongated body, a stimulation element mounted on the third elongated body, and another complementary coupling mechanism configured to slidably engage the other coupling mechanism, wherein the third elongated body is configured to deploy from the first elongated body by slidably disengaging at least a portion of the other complementary coupling mechanism from the other coupling mechanism.

141. (New) The stimulation kit of claim 126, further comprising a stimulation source configured to be coupled to the first and second stimulation leads.

142. (New) A method of treating a disorder in a patient using the stimulation kit of claim 126, comprising:

delivering the first stimulation lead into the epidural space of the patient's spine;
delivering the second stimulation lead into the epidural space by sliding the
complementary coupling mechanism along the coupling mechanism; and
deploying the second elongated body from the first elongated body by slidably
disengaging at least a portion of the complementary coupling mechanism from the coupling
mechanism.

143. (New) The method of claim 142, wherein the first and second stimulation leads
are delivered into the epidural space through a percutaneous opening.

144. (New) The method of claim 142, further comprising conveying stimulation
energy from the first and second stimulation elements into neural tissue within the patient's
spine.

145. (New) The method of claim 142, wherein the disorder is chronic pain.

146. (New) A stimulation kit, comprising:

a first tissue stimulation lead comprising a first elongated body, a first stimulation
element, and a first coupling mechanism longitudinally extending along at least a portion of
the first elongated body; and

a second tissue stimulation lead comprising a second elongated body, a second
stimulation element, and a first complementary coupling mechanism configured to slidably
engage the first coupling mechanism, wherein the complementary coupling mechanism
does not extend along a portion of the second elongated body, and the second elongated
body is configured to deploy from the first elongated body by bowing the portion of the
second elongated body away from the first elongated body.

147. (New) The stimulation kit of claim 146, wherein at least one of the first and second elongated bodies is cylindrically-shaped.

148. (New) The stimulation kit of claim 146, wherein the greatest cross-sectional dimension of at least one of the first and second elongated bodies is 5 mm or less.

149. (New) The stimulation kit of claim 146, wherein the first and second stimulation elements are electrodes.

150. (New) The stimulation kit of claim 146, wherein the first and second stimulation elements are mounted on the respective first and second elongated bodies.

151. (New) The stimulation kit of claim 146, wherein the first and second stimulation elements are configured to face a single direction when the first complementary coupling mechanism slidably engages the first coupling mechanism.

152. (New) The stimulation kit of claim 146, wherein each of the first and second stimulation leads comprises a plurality of stimulation elements.

153. (New) The stimulation kit of claim 146, wherein the first coupling mechanism and first complementary coupling mechanism are configured to slidably engage each other in a rail and slot arrangement.

154. (New) The stimulation kit of claim 146, wherein the second complementary coupling mechanism extends along only a distal portion of the second elongated body.

155. (New) The stimulation kit of claim 146, wherein the second elongated body is shorter than the first elongated body.

156. (New) The stimulation kit of claim 146, wherein the first stimulation lead comprises another coupling mechanism longitudinally extending along at least a portion of the first elongated body, the stimulation kit further comprising a third stimulation lead

comprising a third elongated body, a stimulation element mounted on the third elongated body, and another complementary coupling mechanism configured to slidably engage the other coupling mechanism, wherein the third elongated body is configured to deploy from the first elongated body by bowing the portion of the third elongated body away from the first elongated body.

157. (New) The stimulation kit of claim 146, further comprising a stimulation source configured to be coupled to the first and second stimulation leads.

158. (New) A method of treating a disorder in a patient using the stimulation kit of claim 146, comprising:

delivering the first stimulation lead into the epidural space of the patient's spine;
delivering the second stimulation lead into the epidural space by sliding the complementary coupling mechanism along the coupling mechanism; and
deploying the second elongated body from the first elongated body by bowing the portion of the second elongated body away from the first elongated body.

159. (New) The method of claim 158, wherein the first and second stimulation leads are delivered into the epidural space through a percutaneous opening.

160. (New) The method of claim 158, further comprising conveying stimulation energy from the first and second stimulation elements into neural tissue within the patient's spine.

161. (New) The method of claim 158, wherein the disorder is chronic pain.

162. (New) A stimulation kit, comprising:

a first tissue stimulation lead comprising a first elongated body, a first stimulation element, and a first coupling mechanism longitudinally extending along at least a portion of the first elongated body; and

a second tissue stimulation lead comprising a second elongated body, a second stimulation element, and a first complementary coupling mechanism configured to slidably engage the first coupling mechanism, wherein the second stimulation lead comprises a flap on which the second stimulation element is disposed, the flap extending along a portion of the complementary coupling mechanism, and configured to be secured by the coupling mechanism when the portion of the complementary coupling mechanism slidably engages the coupling mechanism and released by the coupling mechanism when the portion of the complementary coupling mechanism slidably disengages the coupling mechanism.

163. (New) The stimulation kit of claim 162, wherein at least one of the first and second elongated bodies is cylindrically-shaped.

164. (New) The stimulation kit of claim 162, wherein the greatest cross-sectional dimension of at least one of the first and second elongated bodies is 5 mm or less.

165. (New) The stimulation kit of claim 162, wherein the first and second stimulation elements are electrodes.

166. (New) The stimulation kit of claim 162, wherein the first and second stimulation elements are mounted on the respective first and second elongated bodies.

167. (New) The stimulation kit of claim 162, wherein the first and second stimulation elements are configured to face a single direction when the first complementary coupling mechanism slidably engages the first coupling mechanism.

168. (New) The stimulation kit of claim 162, wherein each of the first and second stimulation leads comprises a plurality of stimulation elements.

169. (New) The stimulation kit of claim 162, wherein the first coupling mechanism and first complementary coupling mechanism are configured to slidably engage each other in a rail and slot arrangement.

170. (New) The stimulation kit of claim 162, wherein the second complementary coupling mechanism extends along only a distal portion of the second elongated body.

171. (New) The stimulation kit of claim 162, wherein the second elongated body is shorter than the first elongated body.

172. (New) The stimulation kit of claim 162, wherein the first stimulation lead comprises another coupling mechanism longitudinally extending along at least a portion of the first elongated body, the stimulation kit further comprising a third stimulation lead comprising a third elongated body, a third stimulation element mounted on the third elongated body, and another complementary coupling mechanism configured to slidably engage the other coupling mechanism, wherein the third stimulation lead comprises another flap on which the third stimulation element is disposed, the other flap extending along a portion of the other complementary coupling mechanism, and configured to be secured by the other coupling mechanism when the portion of the other complementary coupling mechanism slidably engages the other coupling mechanism and released by the other coupling mechanism when the portion of the other complementary coupling mechanism slidably disengages the other coupling mechanism.

173. (New) The stimulation kit of claim 162, further comprising a stimulation source configured to be coupled to the first and second stimulation leads.

174. (New) A method of treating a disorder in a patient using the stimulation kit of claim 162, comprising:

delivering the first stimulation lead into the epidural space of the patient's spine;
delivering the second stimulation lead into the epidural space by sliding the complementary coupling mechanism along the coupling mechanism;

slidably engaging the portion of the complementary coupling mechanism to secure the flap; and

slidably disengaging the portion of the complementary coupling mechanism to release the flap.

175. (New) The method of claim 174, wherein the first and second stimulation leads are delivered into the epidural space through a percutaneous opening.

176. (New) The method of claim 174, further comprising conveying stimulation energy from the first and second stimulation elements into neural tissue within the patient's spine.

177. (New) The method of claim 174, wherein the disorder is chronic pain.